Armed Forces College of Medicine

AFCM

Musculoskeletal & Integumentary System Module

MSI-110

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Module Director

Musculoskeletal & Integumentary System
Main Goals

1. Describe the morphology, microscopic & biochemical structure of cartilage, bones and joints.

2. Describe the immunological basis & pathology of cartilage, bones and joints diseases.

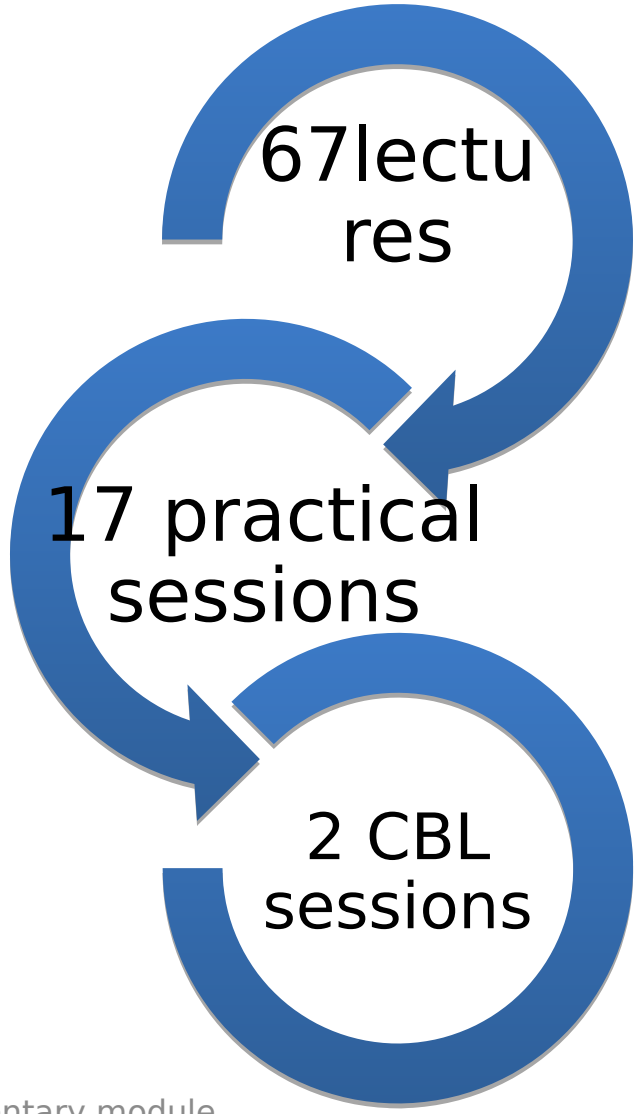
3. Describe the morphology, development, microscopic structure, mechanism of action of skeletal muscles and neuromuscular junction.

4. Describe the biochemical basis, pathology & pharmaco-therapeutic agents of muscle diseases.

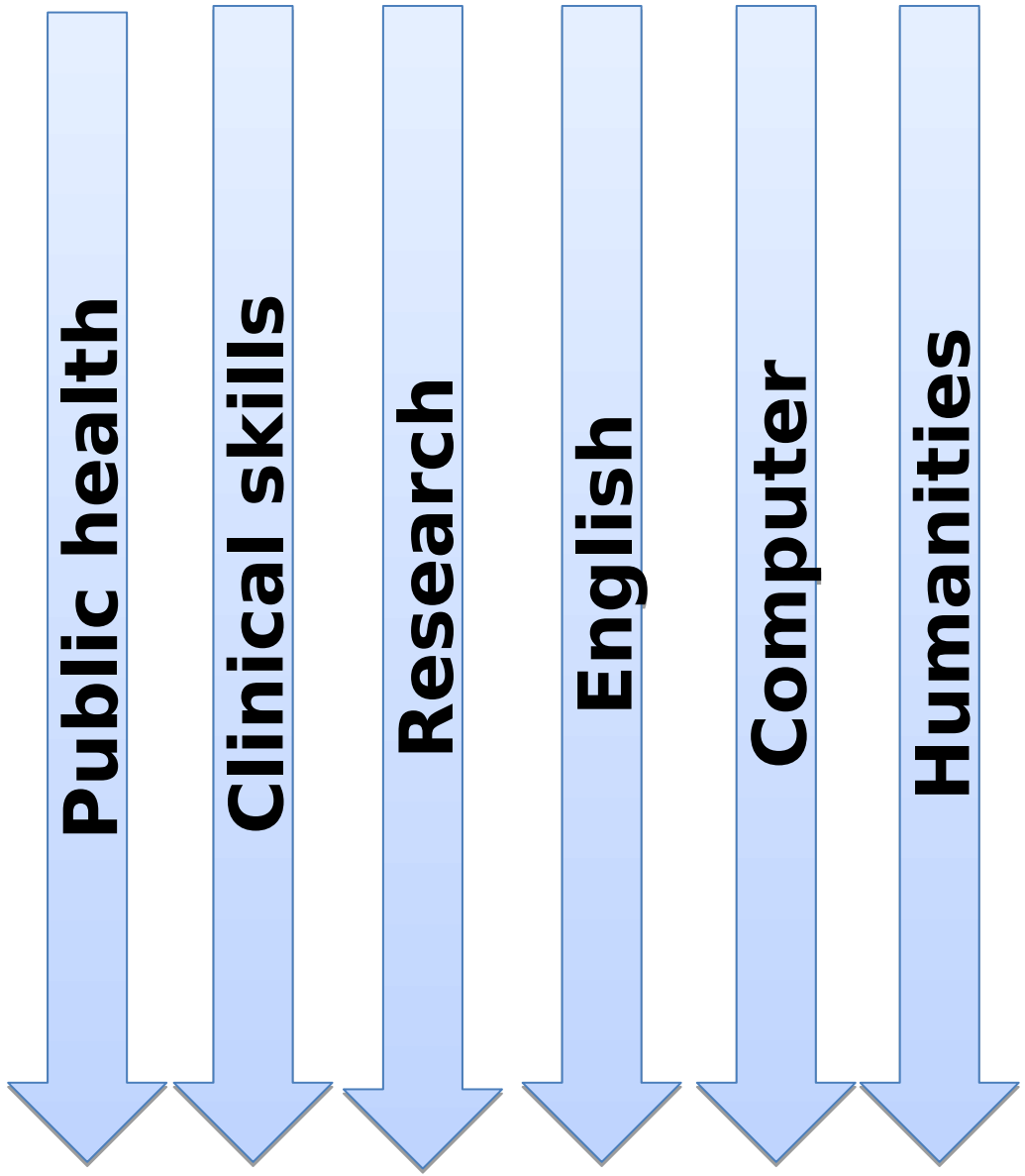
5. Describe the dermatomes, microscopic structure of skin with the pathology of related

MSI-110

- 10 Credit points
- 200 Marks
- 7 sharing departments



- 41 Anatomy
- 8 Pathology
- 7 Histology
- 7 Physiology
- 6 Biochemistry
- 2 Pharmacology
- 1 Microbiology



Themes

Cartilage, bones and joints

Muscles

Skin

Labs	Lectures	Theme
Anatomy	• Topography of upper & lower limb	Cartilage, es: Bones & joints of UL
Histology	• Microscopic Structure of cartilage & bone	Histology of cartilage & bone
Bio	• Vitamin C, D & calcium	
Pathology	• Pathology of bone diseases & tumors	

Lab	Subtopic (lecture)	Topic
Anatomy	• Joints of upper & lower limbs	Cartilage, bo… jo… Bones & joints of LL
Bio	• Purine metabolism, hyperuricemia & gout	
Pathology	• Pathology of joint diseases	Pathology Bones & joints
Microbiology	• Autoimmunity	

Labs	Lectures	Theme
Anatomy	Anatomy of muscles & nerves of upper limb	Anatomy of different regions of UL
Histology	Microscopic Structure of Skeletal muscle fibers	
Physiology	• Physiology of skeletal muscle excitability, contraction, metabolism and NMJ. • Physiology of the smooth muscles.	
Bio	• Glycogen metabolism • Glycogen storage diseases	Applied biochemistry
Pharmacology	• Myasthenia gravis • Neuromuscular blockers	

Labs	Lectures	Theme
	• Movements of upper limb • Injury of nerves of upper limb	u n Anatomy of different regions of LL
Anatomy	• Anatomy of muscles & nerves of lower limb	
Pathology	• Movements of lower limb • Injury of nerves of lower limb	
	• Body weight transmission & mechanism of walking • Development of musculoskeletal system	anomalies of UL & LL
	• Pathology of muscle diseases	

Labs **lectures** **Theme**

“Skin”

Anatomy

Histology

Pathology

- Dermatomes & cutaneous nerves of upper and lower limbs.

- Microscopic Structure of Skin.

Histology of Muscle & skin

- Pathology of skin disorders.

Pathology of Skin

Clinical Skills

1. Examination of upper limb joints
2. Examination of lower limb joints
3. Radiological anatomy of upper & lower limbs

2 CBL sessions

Assessment Plan

Total marks = 200

Formative exam

1/module

Mid module exam

MCQs +SEQs

10% = 20 marks

Portfolio

10% = 20 marks

(CBL= 10 marks)

End module written exam

MCQs + SEQs

20% = 40 marks

End module practical exam

OSPE

20% = 40 marks

Final written exam

MCQ & SEQs.

40% = 80 marks

Module Assessment Schedule

Formative exam 1 **Formative exam 2**	24/6/2024	MCQ (On D2L)
Mid Module Exam	8/7/2024	Written (MCQ +SEQ)
End Module Exam	31/7/2024	**Written** **(MCQ. + SEQ)**
	1/8/2024	**OSPE**

Thank You